KHANUKAYEV, A. N.

Doc Tech Sci - (diss) "Waves of stresses in explosion and means
for the rational use of their energy in shattering large mountain
rock." Moscow, 1961. 53 pp; with illustrations; (Academy of
Sciences USSR, Inst of Mining Affairs); 250 copies; price not
given; list of author's works on pp 52-53 (10 entries); (KL,
7-61 sup, 231)

KHANUKAYEV, Aleksandr Misanovich; BARANOV, Yevgeniy Gerasimovich; MOSINETS,
Vladimir Nikolayevich; MUKHIN, M.Ye., otv. red.; SEMIKINA, T.F.,
red. izd-va; ANOKHINA, M.G., tэkhn. red.

[Experimental study of breaking rock by blasting] Eksperimental'nye
issledovaniia protsessa razrusheniia porod vzryvom. Frunze, Izd-vo
AN Kirgizskoi SSR, 1961.   133 p.   (MIRA 14:11)
                         (Blasting)

KHANUKAYEV, A.N., kand.tekhn.nauk

Calculating the thickness of interchamber pillars. Gor. zhur.
no.4:23-27 Ap '60.   (MIRA 14:6)

1. Leningradskiy gornyy institut.
               (Blasting)
               (Mining engineering)

KHANUKAYEV, A.N.; VANYAGIN, I.F.; GOGOLEV, V.M.; MYRKIN, V.G.

Propagation of pressure waves in blasting hard rocks.   Zap.LGI
44 no.1:118-126 '61.   (MIRA 14:10)

(Blasting)

KHANUKAYEV, Aleksandr Nisanovich; ZAKHAROV, M.I., otv. red.; YEROKIN, G.M., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.

[Energy of stress waves in breaking rocks by blasting]Energiia voln napriazhenii pri razrushenii porod vzryvom. Moskva, Gos-gortekhizdat, 1962. 199 p. (MIRA 15:10)

(Blasting)

KHANUKAYEV, A.N.; SAVRASOV, L.K.

Elastic constants of rocks and methods for their determination.
Izv. AN Kir. SSR. Ser. est. i tekh. nauk 3 no.3:95-102 '61.

(MIRA 15:3)

(Rocks—Testing)   (Ultrasonic testing)

KHANUKAYEV, A.N., kand.tekhn.nauk; BOROVIKOV, V.A., gornyy inzhener

Interconnection between the parameters of a shock wave
in a charge holder and a pressure wave in a rock. Vzryv.
delo no.50/7:20-30 '62.
                                                    (MIRA 15:9)

1. Leningradskiy gornyy institut imeni G.V. Plekhanova.
                        (Blasting)

SUKHANOV, Aleksey Filimonovich, prof., doktor tekhn. nauk;
NAZAROV, Petr Petrovich; KUTUZOV, Boris Nikolayevich;
NEVSKIY, Vladimir Leonidovich; DMITRIYEV, Aleksey
Pavlovich; GOLOVIN, Grigoriy Mikhaylovich; MISNIK,
Yuriy Mikhaylovich; KHANUKAYEV, Aleksandr Nisanovich;
KOROLEVA, T.I., red.izd-va; SHKLYAR, S.Ya., tekhn. red.

[Boring and blasting operations] Burovzryvnye raboty. [By]
A.F.Sukhanov i dr. Moskva, Gosgortekhizdat, 1962. 242 p.
                  (Boring)   (Blasting)   (MIRA 16:9)

KHANUKAYEV, A.N., doktor tekhn. nauk

Effect of radial clearances and air spaces on the parameters
of strain waves and the shattering process. Vzryv. delo
no.54/11:35-47 '64.   (MIRA 17:9)

1. Leningradskiy gornyy institut imeni Plekhanova.

KHABAKAYEV, A.E., prof.; BAKIYEV, M.Kh., inzh.

Rock breaking in the bench during the blasting of borehole charges.
Izv.vys.ucheb.zav.;gor.zhur. 7 no.9:72-83 '64.

(MIRA 18:1)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni
gornyy institut imeni G.V.Plekhanova. Rekomendovana kafedroy
burovzryvnykh rabot.

TARANOV, Petr Yakovlevich. KHANUKAYEV, A.N., prof., retsenzent;
BUBOK, V.K., retsenzent; BOROVIKOV, V.A., retsenzent;
KARPUNOV, Ye.G., retsenzent; MISNIK, Yu.M., retsenzent;
SMIRNOV, N.A., retsenzent; RAZAMAT, V.V., retsenzent;
SAVRASOV, L.M., retsenzent; YURMANOV, Yu.A., retsenzent;
BABICHEV, N.S., retsenzent

[Blasting operations] Burovzryvnye raboty. Izd.2. Mo-
skva, Nedra, 1964. 253 p.   (MIRA 18:7)

KHANUKAYEV, A.N., doktor tekhn. nauk, prof.; FADEYIN, A.B., inzh.

Analysis of diagrams, and a simplified formula for determining the intervals of short-delay blasting in strip mines. Vzryv. delo no.57/14:52-60 '65.   (MIRA 18:11)

1. Leningradskiy gornyy institut.

AUTHOR: None given   SOV/106-59-2-10/11

TITLE: Authors' Certificates (Avtorskiye svidetel'stva)

PERIODICAL: Elektrosvyaz', 1959, Nr 2, p 78 (USSR)

ABSTRACT: S.P. Khlebnikov and P.A. Anikeyev - "A Method of Fixing
            Magnetic Heads in Recording Equipment Using a Rigid Carrier";
            G.V. Braude - "A Method for Compensating for Irregular Film
            Movement in Travelling Beam Tube Systems"; M.G. Garb and
            V.M. Sigalov - "A Method of Centralised Synchronisation";
            D.M. Khanukayev - "A Method of Synchronisation of Colour
            Television Receivers with Sequential Transmission of Colours
            by Fields"; B.I. Strelkov - "Trigger Apparatus"; A.I.
            Sapgir - "A Method of Extraction of Pulses from Pulse Trains";
            N.N. Korovyanskiy - "A Method for Reducing the Time of
            Ascertaining the Transfer Characteristic of a Television
            Channel"; Karl-Heinz Geistrad and Henz Lemann (German
            Democrat Republic) - "Apparatus for Recording Television
            Talks"; S.I. Yevtyanov - "A Method of Increasing the
            Stability Factor of an Oscillator (Regime)"; V.M. Zhukov
            and G.G. Rachkova - "Apparatus for Obtaining Frequency-
            modulated Pulses"; Yu.I. Serebryakov - "A Method of
            Cancellation of Constant Radio-echoes"; L.F. Abramova and
Card1/2   M.Ye. Gertsenshteyn - "Co-axial Filters with Weak Coupling";

IVANOV, B.T.,; SEMENOVSKAYA, Ye.N.,; GOL'TSMAN, N.I.,; KHANUKAYEV, D.R.

Investigations in the field of perception of stereoscopic image.
Probl. fiziol. opt. 11:70-83 '55.

(MIRA 9:6)

1. Laboratoriya stereokino Vsesoyuznyy nauchno-issledovatel'skiy
kinofotoinstitut;
        (VISION,
            perception of stereoscopic image (Rus))

KHANUKAYEV, I. N., Cand Tech Sci -- (diss) "Research on the processes for straightening and strengthening shaped, grove-buffing wheels." Moscow, 1960, 21 pages, illustrations; (Ministry of Higher and Specialized Secondary Education RSFSR, All-Union Correspondence Polytechnical Institute); 150 copies, free. (KL, 50-60, 134)

L 32168-66   EWT(m)/T   IJP(c)   RM/WW/JWD

ACC NR: AP6012137   (A)   SOURCE CODE: UR/0413/66/000/007/0057/0057   39

INVENTOR: Khanukayeva, I. A.; Faydel', G. I.; Belyanina, Ye. T.; Shlenaya, N. S. B

ORG: none

TITLE: Plasticizing graft styrene copolymers with rubber. Class 39, No. 180332

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 57

TOPIC TAGS: plasticizer, styrene copolymer, graft copolymer

ABSTRACT: An Author Certificate has been issued describing a method of plasticizing graft styrene copolymers with rubber using plasticizers. To improve the properties of the final product, a mixture of esters obtained by esterification of synthetic monobaric alcohols containing C_7—C_9 with synthetic monobasic acids containing C_{10}—C_{13}, C_{14}—20 in the amount of 0.8—3.0% is suggested as the plasticizer.

SUB CODE: 11/   SUBM DATE: 07Jan63   [LD]

Card 1/1 GD   UDC: 678.049.13

84288

15.9900 2109. 2203. 1570   S/138/60/000/006/001/008
11.2211   A051/A029

AUTHORS: Berlin, A.A., Khanukayeva, I.A.

TITLE: The Production and Main Properties of Grafted Copolymers of
            Styrene and Rubber.

PERIODICAL: Kauchuk i Rezina, 1960, No. 6, pp. 20 - 22.

TEXT: The article presents the results of an investigation on graft-
ed copolymerization of synthetic rubbers and styrene in aqueous dispersions
(latexes) and a solution of the polymer in the monomer. The methods of
conducting grafted copolymerization in heterogenous dispersion systems of
polymers and monomers in various liquid mediums have been developed only
slightly. The author has previously published an article on the subject
(Ref. 7), Butadiene-styrene CKC-30 (SKS-30) and butadiene-acrylonitrile
latexes of CKH-18 (SKN-18), CKH-26 (SKN-16), and CKH-40 (SKN-40) rubbers
were taken for the investigation. Table 1 shows the results of the compara-
tive characteristics of the rubber and styrene copolymer (in the ratio 33:
66), and the mechanical mixture of a similar composition and the initial
components. Table 2 gives the figures on the main physico-mechanical pro-

Card 1/3

84288

S/138/60/000/006/001/008
A051/A029

The Production and Main Properties of Grafted Copolymers of Styrene and
Rubber

perties of the products of the interaction between the styrene and rubber.
The data show that during the reaction an initiated destruction of the ruh-
ber and the formation of branched structures takes place. An investiga-
tion of the thermomechanical properties showed that the formation of branch-
ed structures somewhat decreases the vitrification temperature and the
thermostability according to Martens (75 - 78°C instead of 80 - 85°C), but
increases the temperature range of the highly elastic state and the tem-
perature of transference to the viscous-fluid state (Ref. 7). The styrene
copolymers grafted with butadiene-styrene rubber are not inferior to the
so-called latex polystyrene as to their dielectric properties and have a
higher resistance. It is noted that a comparatively large amount of rubber
is required in the grafted copolymerization in latexes of synthetic rubbers.
Apparently in this process the chain transference process takes place with
a lack of intensity for the following two reasons: 1) incomplete contact
between the rubber particles covered with the emulsifier and the monomer,
2) the presence of antioxidant admixtures, disrupting the growing chains.
When conducting grafted copolymerization in the mass, the conditions are

Card 2/3

KHANUKAYEV, I. H., Cand Tech Sci (diss) -- "Investigation of the strength and processes of dressing shaped slot-grinding wheels". Leningrad, 1959. 20 pp (Min Higher and Inter Spec Educ RSFSR, Leningrad Inst of Precision Mech and Optics), 200 copies (KL, No 10, 1960, 133)

KHANUKAYEV, I. N.: Master Tech Sci (diss) -- "Investigation of the setting

process and the stability of split-grinding disks". Leningrad, 1959. 26 pp

(Min Transportation USSR, Leningrad Order of Lenin Inst of Railroad Transport

Engineers im Acad V. N. Obraztsov), 150 copies (KL, No 18, 1959, 126)

BERLIN, A.A.; KHANUKAYEVA, I.A.

Preparation and basic properties of styrene and rubber graft
copolymers. Kauch.i rez. 19 no.6:20-22 Je '60.   (MIRA 13:6)

1. Institut khimicheskoy fiziki Akademii nauk SSSR, Kuskovskiy
khimzavod.
            (Styrene)   (Rubber)

IMAMALIEVA, G.M.; KHANUKAYEVA, R.S.

Combined treatment in brucellosis with levomycetin and
gamma globulin.   Azerb. med. zhur. no.1:21-25 Ja '62.
(BRUCELLOSIS) (CHLOROMYCETIN) (GAMMA GLOBULIN)

MAKHMUDBEKOV, L.A.; KHANUKAYEVA, R.S.

Pathogenesis of recurrences of typhoid fever, their treatment
and prevention. Azerb. med. zhur. 41 no.3:59-63 Mr '64.
(MIRA 17:10)

SOV/64-58-6-2/15

AUTHORS: Kurnosov, K. P.,   Fedotina, Z. Kh. Razumovskiy, S. D.,
             Khanukayeva, Yu. I.

TITLE: The Pyrolysis of **Light Distillate Oil** (piroliz gazovogo benzina)
             Study of Pyrolysis Under Laboratory Conditions (Izucheniye
             piroliza v laboratornykh usloviyakh)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 6, pp 330-332 (USSR)

ABSTRACT: In connection with the realization of the plan to step up
             the development of the chemical industry also the demand
             for ethylene is going to rise rapidly so that it will be-
             come necessary to find new sources of raw materials. The
             use of liquefied gas obtained from natural gas is of inter-
             est from this point of view. Due to the few references obtainable
             the present analyses were carried out only on a laboratory
             scale. Liquefied gas obtained from Tuymazinsk was used in
             the process. The distillation was carried out in a Podbil'-
             nyakh column. A schematic drawing of the laboratory unit
             used for the pyrolysis is given. The complete analysis of
Card 1/2   the gas obtained by pyrolysis was performed by means of the

The Pyrolysis of **Light Distillate Oil**
Study of Pyrolysis Under Laboratory Conditions

SOV/64-58-6-2/15

apparatus atTsIATIM and the analysis of the unsaturated compounds and hydrogen by means of the apparatus at VTI. It is pointed out that no far-reaching decomposition of the gasoline is achieved by the pyrolysis of liquefied gas at temperatures below 800°. A lengthening of the contact time does not result in an increase of the ethylene yield. A comparison of the results obtained proves that the ethylene yield is increased when the contact time is shortened while temperature is increased. Moreover, as a consequence of higher temperature, more acetylene is obtained, which again can be turned into ethylene by hydration. Tests in the presence of steam proved that the total amount of coke, resins, and losses is somewhat lower than in the pyrolysis performed in the absence of steam. According to the authors, optimum conditions are: a temperature of 825-835°, a maximum contact time of 1 second, and a dilution with steam to the extent of 10-15 per cent by weight. There are 5 figures, 1 table, and 1 reference, 1 of which is Soviet.

Card 2/2

KHANUKOV, A. (Leningrad); USOV, I., konstruktor (Leningrad)

New carburetors for automobile engines. Za rul. 19 no.4:22-24
Ap '61.   (MIRA 14:7)

1. Rukovoditel' sektora toplivnoy apparatury TSentral'nogo
nauchno-issledovatel'skogo i konstruktorskogo instituta toplivnoy
apparatury avtotraktornykh i statsionarnykh dvigateley (for Khanukov).
          (Automobiles—Engines—Carburetors)

KHANUKOV, A.A.; OBRYADIN, V.G.

Criteria for evaluating the engineering standard and reliability
of carburetors. Avt. prom. 31 no.2:7-10   F '65.

(MIRA 18:3)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy
institut toplivnoy apparatury avtotraktornykh i statsionarnykh
dvigateley.

1. KHANUKOV, Ye D

2. USSR (600)

4. Khacaturov, Tigran Sergeevich, 1906-

7. "Railway transportation in the U.S.S.R." T.S. Khachaturov. Reviewed by
    Ye D. Khanukov. Sov. kniga no.12, 1952

9. Monthly list of Russian Accessions, Library of Congress, March 1953, Unclassified

KHANUKOV, Yevgeniy Davydovich; PESKOVA,L.N., redaktor; VERINA,G.P.,
tekhnicheskiy redaktor

[Transportation and distribution of industries] Transport i razmeshchenie
proizvodstva. Moskva, Gos.transp.zhel-dor. izd-vo, 1955. 411 p.

(MLRA 9:3)

(Russia--Industries) (Russia--Transportation)

GIBSIMAN,A.Ye.; DANILOV,S.K., professor; DMITRIYEV,V.I.; KORNEYEV,A.I.;
   TVERSKOY,K.N.; UMBLIYA,V.M.; KHANUKOV,Ye.D.; CHERNOMORDIK,D.I.;
   CHUDOV,A.S.; SHIL'NIKOV,N.S.; KRISHTAL',L.Y., redaktor; KHITROV,
   P.A., tekhnicheskiy redaktor

   [Economics of transportation] Ekonomika transporta. Moskva, Gos.
   transp.zhel-dor.izd-vo, 1955. 617 p.   (MIRA 9:3)
                        (Railroads--Finance)

Name: KHANUKOV, Yevgeniy Davydevich

Dissertation: Transport and Distribution of Production

          Degree: Doc Econ Sci

     Affiliation: Moscow Transport-Economics Inst

Defense Date, Place: 21 Dec 55, Council of Inst of Economics,
                      Acad Sci USSR

  Certification Date: 1 Dec 56

          Source: BMVO 6/57

KHANUKOV, Ye.D., prof.

Railroad transport in the development of the productive forces
of the Soviet Union. Zhel.dor.transp. 39 no.11:21-26 N '57.

(MIRA 10:10)

(Railroads)

DMITRIYEV, Valerian Ivanovich,; KHANUKOV, Ye.D., red.; KRISHTAL', L.I., red.
    KHITROV, P.A., tekhn. red.

    [Problems in the economics of rolling stock] Voprosy ekonomiki
    vagonnogo parka. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 291 p.
                                                    (MIRA 11:12)
                    (Railroads--Rolling stock)

KHANUKOV, Ye.D., prof., doktor ekon. nauk.

Valuable work on the cost of railroad freight transportation ("The
cost of railroad freight transportation" by E.V. Mikhal'tsev.
Reviewed by E.D. Khanukov). Zhel. dor. transp. 40 no.2:93-95 F '58.
(Railroads--Freight)   (MIRA 11:3)
(Mikhal'tsev, E.V.)

KHACHATUROV, Tigran Sergeyevich; KHANUKOV, Ye.D., red.

[Problems in the economics of transportation] Voprosy ekonomiki transporta. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 278 p.
(MIRA 13:5)

(Transportation--Cost of operation)

KHANUKOV, Ya.D,, doktor ekon.nauk prof.; SHUKTSTAL',Ya.V., kand.ekon.
nauk, starshiy nauchnyy sotrudnik

Method of calculating national economic costs for passenger
and freight transportation by various types of U.S.S.R. trans-
port. Trudy MIIT no.115:26-55 '59.   (MIRA 13:1)

1. Moskovskiy institut inzhenerov zheleznodoroshnogo trans-
porta (for Khanukov). 2. Institut kompleksnykh transportnykh
problem AN SSSR (for Shukstal')
            (Transportation--Cost of operation)

BELOV, I.V., dotsent, kand.ekon.nauk; BOROVOY, N.Ye., dotsent, kand.tekhn.
nauk; VINNICHENKO, N.G., dotsent, kand.ekon.nauk; RAYKHER, G.S.,
inzh.; KHANUKOV, Yevgeniy Davydovich, prof., doktor ekon.nauk;
KHOKHLOV, N.F., dotsent, kand.ekon.nauk; PESKOVA, L.N., red.;
KHITROV, P.A., tekhn.red.

[Economics of railroad transportation] Ekonomika zheleznodo-
rozhnogo transporta. Pod obshchei red. E.D.Khanukova. Moskva,
Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia,
1960. 298 p.   (MIRA 14:3)
                    (Railroads--Finance)

HANUKOV, E.D. [Khanukov, Ye, D.], dr., a kozgazdasagi tudomanyok
doktora, foiskolai tanar; BOROTVAS, Elemer [translator]

Principles of the reasonable traffic division among the
branches of transportation in the Soviet Union. Kozl tud
sz13 no.6:237-247 Je '63.

1. Moszkval Vasutmernoki Foiskola (for Khanukov).

TVE SKOY, Konstantin Nikolayevich; KHANUKOV, Ye.D., retsenzent;
KRISHTAL', L.I., red.; BOBROVA, Ye.N., tekh. red.

[Planning in railroad transportation]Planirovanie na zhe-
leznodorozhnom transporte. Moskva, Transzheldorizdat,
1962. 69 p.   (MIRA 15:10)

(Railroads—Management)

PAKHMAN, T.A., kand.ekon.nauk; PONOMAREV, S.A., inzh.; KEDROVA, V.I.
inzh. [deceased]; KHANUKOV, Ye.D., retsenzent; KOLTUNOVA, M.P.,
red.; VASIL'YEVA, N.N., tekhn.red.

[Methodological problems of planning long distance passenger
transportation] Metodicheskie voprosy planirovaniia dal'nikh
passazhirskikh perevozok. Moskva, Vses.izdatel'sko-poligr.
ob"edinenie M-va putei soobshcheniia, 1962. 94 p. (Moscow.
Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo
transporta. Trudy, no.231).   (MIRA 15:8)
            (Railroads--Passenger traffic)

BELOV, Ivan Vasil'yevich, kand. ekon. nauk dots.; BOROVOY, Natan
Yefimovich, kand. tekhn. nauk, dots.; VINNICHENKO.
Nikolay Gavrilovich, kand. ekon. nauk, dots.; RAYZER,
Grigoriy Solomonovich, inzh.; KHANUKOV Yevgeniy Davidovich,
doktor ekon. nauk, prof.; KHOKHLOV, Nikolay Fedorovich,
kand. ekon. nauk, dots.; PESKOVA, L.N., red.

[Economics of railroad transportation] Ekonomika zhelezno-
dorozhnogo transporta. Moskva, Transport, 1965. 359 p.
(MIRA 18:10)

L 31920-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AT6007971 (A) SOURCE CODE: UR/0191/66/000/003/0054/0057

AUTHOR: Potokhina, Ye. S.; Moldavskiy, B. L.; Molotkov, R. V.; Batalin, O. Yo.; Buslovich, Ye. Ya.; Rubinshteyn, E. I.; Ravkina, A. E.; Khanukova, E. S.; Slobina, A. V.; Lykova, T. A.; Bychkova, V. A.

ORG: none

TITLE: Alkenylsuccinic acid anhydrides as hardening agents for epoxy resins

SOURCE: Plasticheskiye massy, no. 3, 1966, 54-57

TOPIC TAGS: epoxy plastic, hardening, solid mechanical property

ABSTRACT: The authors studied the synthesis and use of alkenylsuccinic acid anhydrides as liquid and low-toxic hardening agents for epoxy resins. The anhydrides were synthesized in an electrically heated steel autoclave with a mixing device by the reaction of maleic anhydride with monoolefins:

$$R-CH_2-CH=CH + CH=CH \longrightarrow R-CH=CH-CH-CH-CH_2$$
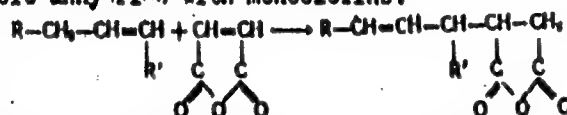
The following anhydrides were prepared: (acid, boiling point in C, et pressure in mm) crotylsuccinic, 122-147, 8; pentenylsuccinic, 135-148, 8; dodecenylsuccinic, 124-210,

Card 1/2 UDC: 678.643'42'5:678.043

L 31920-66

ACC NR: AP6007971

5; and a mixture of isooctenyl- and isononenylsuccinic (ASA), 155-169, 8. Epoxy resins ED-5, ED-6, and EDL were hardened by ASA at 140C for 24 hr, using 93-115, 73-93 and 47-57 g of ASA over 100 g of epoxy resins respectively. Using dimethyl-aniline or triethanolamine as the accelerators, the hardening process was accomplished within 1.5-2 hr at 100C. With the exception of thermal stability, which was 25-35C lower, the physicomechanical properties of the products obtained resembled very closely those obtained by the use of maleic anhydride as the hardening agent. Orig. art. has: 6 tables, 4 fig., and 1 formula.

SUB CODE: 11,07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 003

Card 2/2

GOKUN, A.M., inzh.; KHANUTIN, M.B.; YAKOVLEV, V.P.

MKA-10 truch-mounted crane. Stroi. i dor. mash. 6 no.6:4-6
Je '61.   (MIRA 14:7)
                    (Cranes, derricks, etc.)

9.9865

24808
S/049/61/000/004/001/008
D257/D306

AUTHORS: Riznichenko, Yu.V., Shamina, O.G., and Khanutina, R.V.

TITLE: Elastic waves with a generalized velocity in two-dimen-
             sional bimorphous models

PERIODICAL: Akademiya nauk SSSR. Izvestiya, Seriya geofizicheskaya,
             no. 4, 1961, 497 - 519

TEXT: The present paper is an extension of the work of J. Oliver
(Ref. 7: Earthq. Not., 27, No. 4, 1956) who suggested the use of
layered two-dimensional models for seismic waves in media with pa-
rameters varying continuously in space. The models are sheets of
variable or constant thickness which are stuck together in the same
way as plywood; seismic waves are represented by ultrasonic pulses.
The present authors give a theory of long-wavelength longitudinal,
transverse and surface waves in bimorphous (two-layered) and poly-
morphous (many-layered) models. An experimental work on these wa-
ves is also reported; its aim was to find the possibilities and li-

Card 1/5

Elastic waves with a ...

mitations of two-layered and many-layered models. The work was limi-
ted to a study of vibrations, whose displacement vector lies in the
plane of the two-dimensional model. These vibrations are analogous
to longitudinal, transverse SV and Rayleigh surface waves in three-
dimensional media. Elastic properties of quasi-anisotropic media,
consisting of successive isotropic layers with different properties,
were discussed in the three-dimensional case by Yu.V. Riznichenko
(Ref. 13: Izv. AN SSSR, Ser. gogr. i geofiz. 8, no. 6, 1949). Riz-
nichenko's method is now used in the two-dimensional case. It is
assumed that the two layers in the model are thin compared with the
wavelength of elastic waves. General equations of the static theory
of elasticity and boundary conditions at the faces of the components
of the model, deformed by long longitudinal P and transverse S wa-
ves, are used to calculate the effective longitudinal and transverse
elastic moduli and the velocities of propagation of P and S waves.
The expressions are obtained first for the bimorphous (two-layered)
case and are then generalized to a many-layered model. The veloci-
ties of propagation of long Rayleigh surface waves are calculated

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Elastic waves with a ...

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for single-layered and many-layered plates. A nomogram is given which relates the velocities of P, S and R waves with the Poisson's ratio σ for a massive sample and a plate. The nomogram can be used to find the effective value of σ for a massive sample modelled by a plate. The theoretical expressions were tested by experiments using an ultrasonic pulse source ИКЛ-4 (IKL-4). Piezoelectric Rochelle salt transducers of X-45° cut were used; their dimensions were 10 x 10 x 10, 20 x 20 x 20 and 60 x 40 x 10 mm. The techniques of longitudinal profiles and diagonal transmission were employed to separate longitudinal and transverse waves. Good contact between the working surfaces of the transducers and models was ensured by using castor oil. Models were made of thin sheets of brass, Duralumin, iron, Plexiglas (Perspex) and Getinaks (paper-filled phenolformaldehyde resin). The two-layered models were stuck together by a thin layer of paraffin wax, rubber plasticizer or glue БФ-2 (BF-2). The maximum dimensions of the models were 500 x 600 x 8 mm. The experiments showed that the theory given in the present paper is essentially correct in the case of long waves. It was found that

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if the thickness (h) of two-layered plates is much less than the
elastic wavelength (in practice $h/\lambda \leq 0.1$), then P, S and R waves
are generated in the plate. The attenuation of longitudinal and
transverse waves in two-layered plates obeys the same law as in
single-layered plates. This law is

$$A = A_0 \frac{\exp(-\alpha x)}{x^{1/2}},$$

where A_0 is a constant, α is the absorption coefficient per unit
path length, and the term $x^{1/2}$ allows for spreading of the wave ener-
gy along a circular front. The absolute values of the absorption
coefficient α for P waves, and especially for S waves, are larger
in the two-layered model than in the individual plates (layers),
of which the model is made. A "gradient" medium, in which veloci-
ty varies with depth, was modelled by two wedge-shaped plates
stuck together. It was found that in such a medium even a small va-
riation of velocity with depth, which cannot be detected by means
of hodographs, affects very strongly the amplitudes of the longitu-
dinal waves. There are 16 figures, 2 tables and 24 references: 17

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Elastic waves with a ...   D247/D306

Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to
English-language publications read as follows: E. Howes, Tejada-
Flores and R. Lee, J. Acoust. Soc. Amer., 25, no. 5, 1953; J. Oli-
ver, F. Press and M. Ewing, Geophys., 19, no. 2, 1954; J. Oliver,
Earthq. Not., 27, no. 4, 1956; F. Press, Geophys., 22, no. 2, 1957.

ASSOCIATION: Akademiya nauk SSSR, institut fiziki zemli (Institute
            of Physics of the Earth, Academy of Sciences, USSR)

SUBMITTED: October 29, 1960

Card 5/5

KHANYAKINA, A.Ya., kand.pedagog.nauk

A gliding "boot". Ortop.travm. i protez. 20 no.7:54-55 Jl
'59.   (MIRA 12:10)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta
travmatologii i ortopedii (ispolnyayushchiy obyazannosti direktora -
prof.T.S.Grigor'yeva).
                   (ORTHOPEDICS equipment & supplies)

KHAŃYAKĬNA, A.Ya., kand.pedagog.nauk

Suspension apparatus for training poliomyelitis patients to
walk. Ortop.,travm.i protez. no.5:51-53 '61.   (MIRA 14:8)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta travma-
tologii i ortopedii (dir. - kand.med.nauk Z.P. Lubegina).
             (POLIOMYELITIS) (ORTHOPEDIC APPARATUS)

Automation of welding in fabricating cylindrical shells from
low-c a

SOURCE: Svarochnoye proizvodstvo, no. 1, 1965, 37-38

TOPIC TAGS: welding, automatic welding, submerged arc welding,
cylindrical shell welding

ABSTRACT: Automatic welding of cylindrical shells 500 mm in dia-
meter and 1400→1800 mm long, made from low-carbon steel sheets 5 mm
has been introduced at an unidentified plant. The longitudinal
s are submerged-arc welded from both sides. Circularizes are

mechanization of welding work

[MS]

Card 1/2

ACCE, SION NR: AP5002892

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: IE

NO REF SOV: 000   OTHER: 000

Card 2/2

KHANYAYEV, B.

.I. KHANYAYEV, B.

... of potato digger to ... in 1916. ... khozmashina no. ...
...7.   (...

. ... nauch-issledovatel
...yaystvennogo mashinostroyeniya.
                    (Potato diggers)

KHANYZOV, V.

The collection of dues is not a routine matter. Sov. profsoiuzy 7
no. 7:65-66 Jl '58.   (MIRA 11:8)

1. Zamestitel' zaveduyushchego finansovym otdelom Vsesoyuznogo
tsentral'nogo soveta profsoyuzov.
                        (Trade unions)

BORISOV, V.P.; SYROVAROV, A.I.; KHANYKOV, V.V.; BLOKHIN, N.N., red.; SHAD-
RINA, N.D., tekhn. red.

[Finances of trade unions of the U.S.S.R.; organization and plan-
ning] Finansy professional'nykh soiuzov SSSR; organizatsiia i pla-
nirovanie. Izd.2., perer. i dop. Moskva, Izd-vo VTsSPS Profizdat,
1961. 199 p.   (MIRA 14:8)

1. Moscow. Vysshaya zaochnaya shkola profdvizheniya.
                       (Trade unions—Finance)

BORISOV, Vladimir Petrovich; KHANYKOV, Vladimir Vladimirovich;
     KUZNETSOVA, N.I., red.; SHAIRINA, N.D., tekhn.red.

     [Financial work of the factory, plant and local trade union
     committee] Finansovaia rabota fabrichnogo, zavodskogo i
     mestnogo komiteta profzoiuza. Moskva, Izd-vo VTsSPS Profiz-
     dat, 1959. 125 p.   (MIRA 13:2)
              (Trade unions--Finance)

KHANYKOV, V.V., arkhitektor

An efficient type of locker room equipment. Prom.stroi. 40
no.6:34-37 '62. (MIRA 15:6)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperi-
mental'nyy institut promyshlennykh zdaniy i sooruzheniy.
(Employees' buildings and facilities)

BORISOV, Vladimir Petrovich; KHANYKOV, Vladimir Vladimirovich;
SEMENOV, S.M., red.; SHADRINA, N.D., tekhn. red.

[Budget of the factory and plant trade-union committee]
Biudzhet fabrichno-zavodskogo komiteta. Moskva, Profizdat,
1961. 78 p. (Bibliotechka profsoiuznogo aktivista, no.15)
                                        (MIRA 16:3)

        (Trade unions--Finance)

KHANYKOV, V.V., arkhitektor

Drops in height in one-story industrial buildings. Prom.
stroi. 40 [i.e.41] no.6:20-22 Je '63.   (MIRA 16:10)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-
eksperimental'nyy institut promyshlennykh zdaniy i sooruzheniy.

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KHADZHIOLOV,
D.

to

KHANYKOV, V.V.

END